

CAMDEN POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License CPS/0012/2019/F03


1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Jan-2020
	Coal	Tons	550 000	153 392.10
	Fuel Oil	Tons	5 000	5 899.44
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Jan-2020
	Energy	GWh	1600	300.30
	Ash	Tons	not specified	38 057
	RE PM	kg/MWh	not specified	0.606

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	19.56	
Sulphur Content	%	< 2	0.90
Ash Content	%	25 to 35	24.81

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SOx	NOx
Stack 1	100	3500	1300
Stack 2	100	3500	1300
Stack 3	100	3500	1300
Stack 4	100	3500	1300

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Jan-2020
Unit 1	Fabric Filter Plant (FFP)	100.0%
Unit 2	Fabric Filter Plant (FFP)	99.68%
Unit 3	Fabric Filter Plant (FFP)	99.35%
Unit 4	Fabric Filter Plant (FFP)	99.51%
Unit 5	Fabric Filter Plant (FFP)	Unit Off-line
Unit 6	Fabric Filter Plant (FFP)	99.46%
Unit 7	Fabric Filter Plant (FFP)	99.31%
Unit 8	Fabric Filter Plant (FFP)	Unit Off-line

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	CO ₂
Stack 1	99.9	48.1	53.2	
Stack 2	100.0	89.4	42.0	
Stack 3	99.9	95.1	93.2	
Stack 4	100.0	96.0	95.6	

6 EMISSION PERFORMANCE

Table 6.1 Monthly tonnages for the month of January-2020

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)
1	1.1	1.079	423	
2	6.1	497	187	
3	49.0	1.542	587	
4	18.0	788	287	
5	0.0	0	0	
6	43.7	1.267	398	
7	64.1	1.165	426	
8	0.0	0	0	
SUM	182.1	6.338	2.308	

Table 6.2: Operating days in compliance to PM AEL Limit - January 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
Stack 1	22	0	0	0	0	19.5
Stack 2	30	1	0	0	1	74.5
Stack 3	25	0	0	0	0	59.8
Stack 4	25	1	0	0	1	79.3
SUM	102	2	0	0	2	

Table 6.3: Operating days in compliance to SOx AEL Limit - January 2020

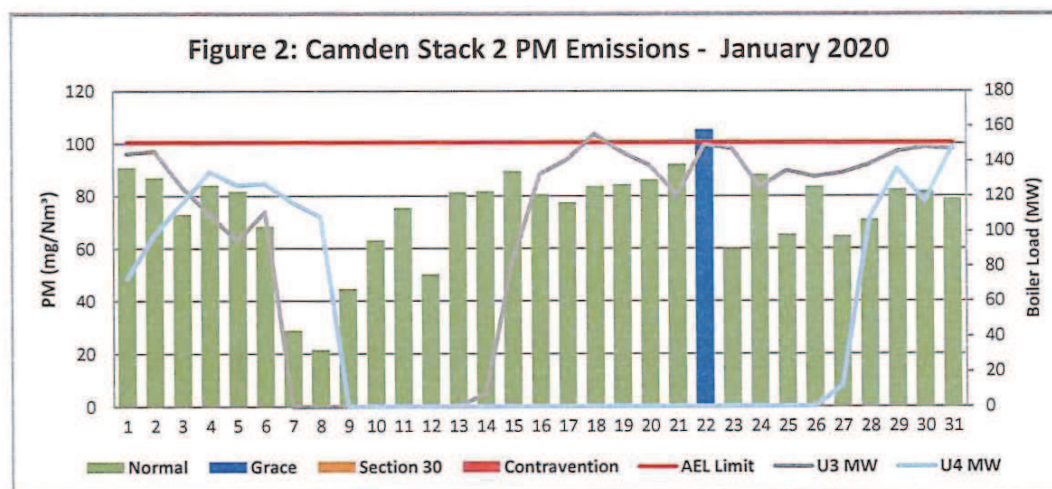
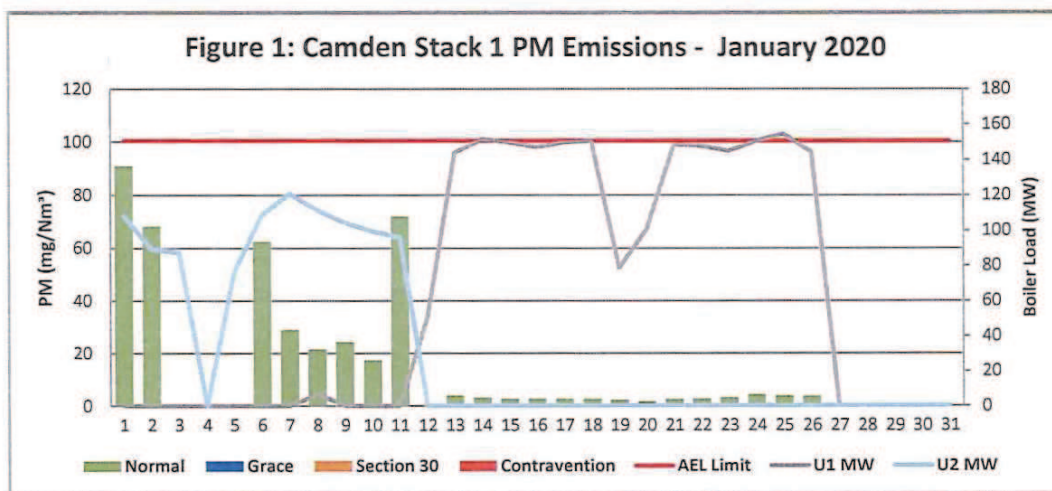
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
Stack 1	23	2	0	0	2	0.0
Stack 2	29	2	0	0	2	0.0
Stack 3	27	0	0	0	0	0.0
Stack 4	30	0	0	0	0	0.0
SUM	109	4	0	0	4	

Table 6.4: Operating days in compliance to NOx AEL Limit - January 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Stack 1	25	0	0	0	0	0.0
Stack 2	31	0	0	0	0	0.0
Stack 3	27	0	0	0	0	0.0
Stack 4	30	0	0	0	0	0.0
SUM	113	0	0	0	0	

Table 6.5: Legend Description

Condition	Colour	Description
Normal		Emissions below Emission Limit Value (ELV)
Grace		Emissions above the ELV during grace period
Section 30		Emissions above ELV during a NEMA S30 incident
Contravention		Emissions above ELV but outside grace or S30 incident conditions



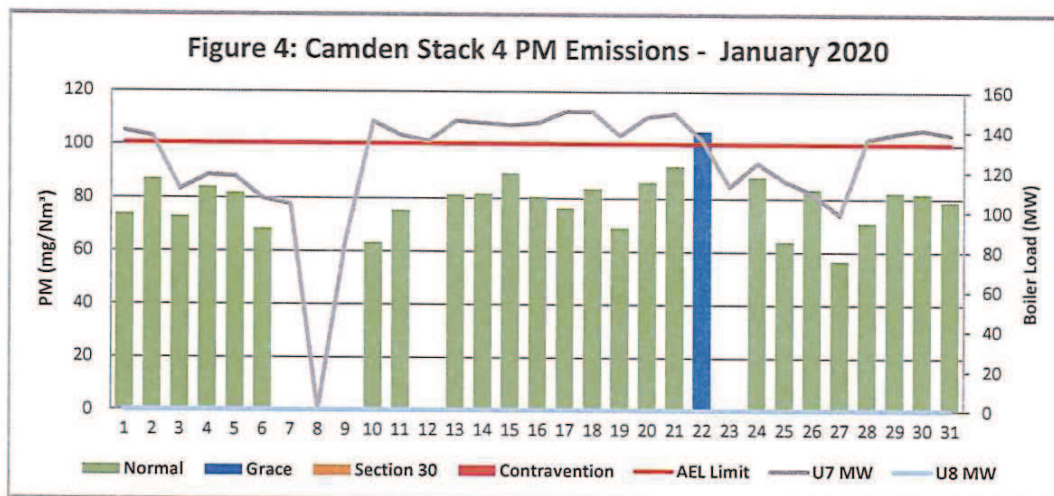
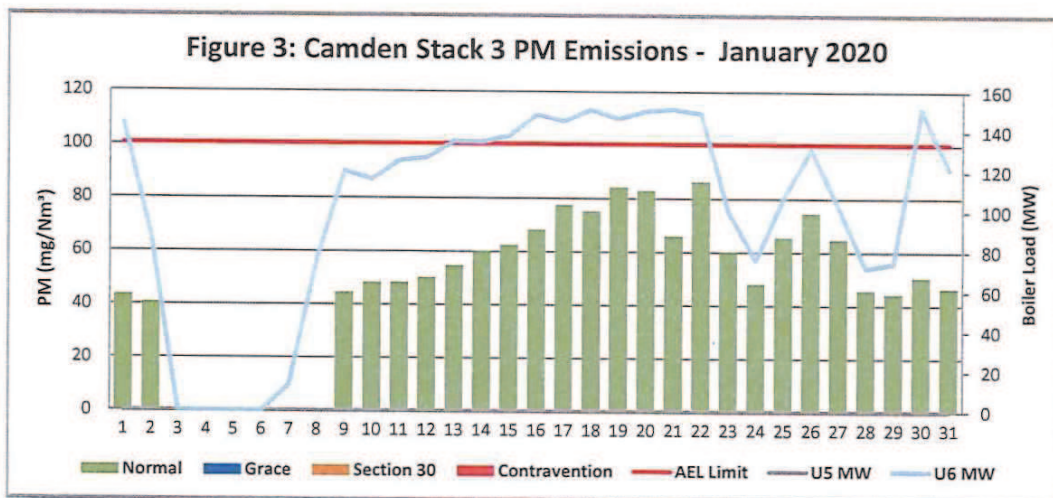


Figure 5: Camden Stack 1 SOx Emissions - January 2020

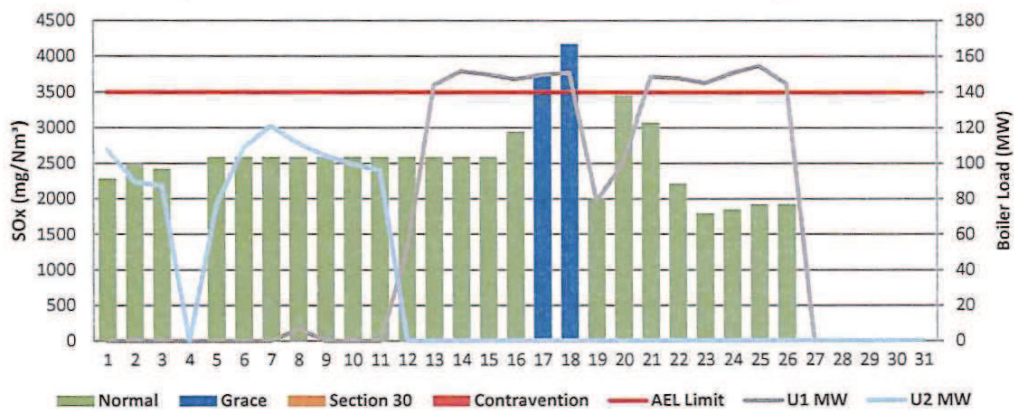
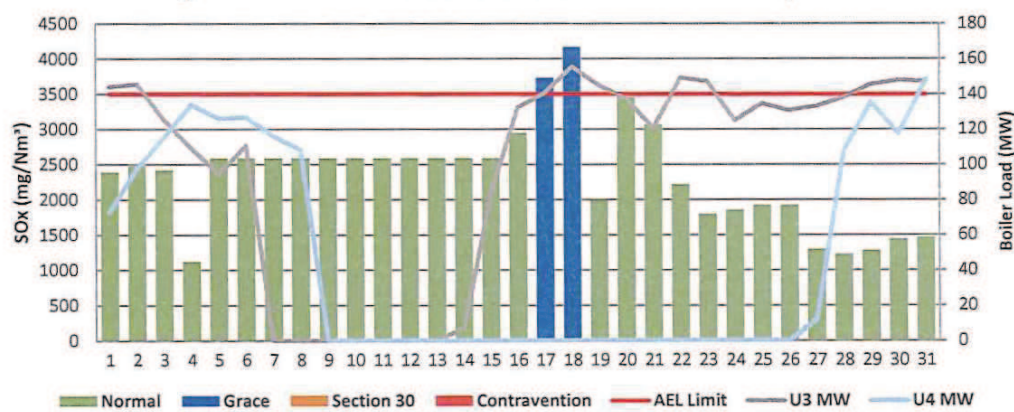


Figure 6: Camden Stack 2 SOx Emissions - January 2020



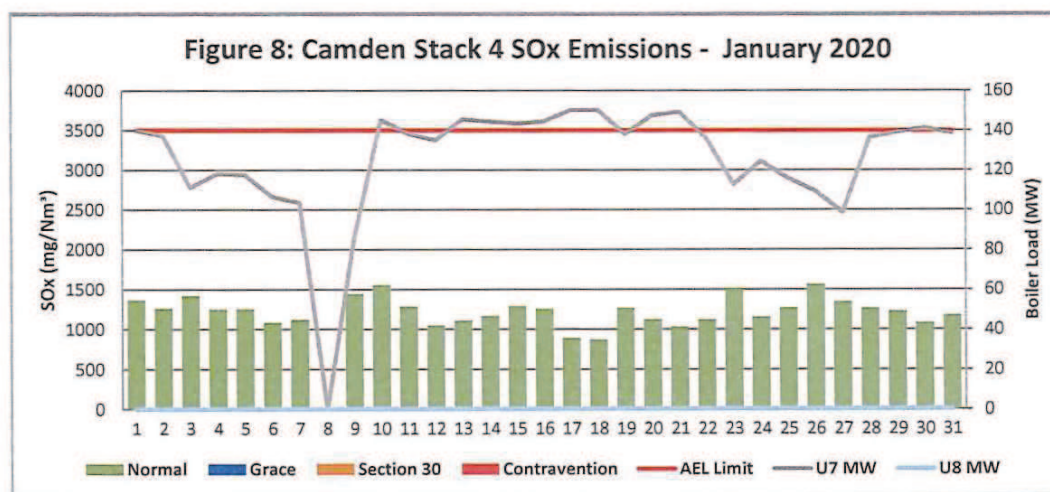
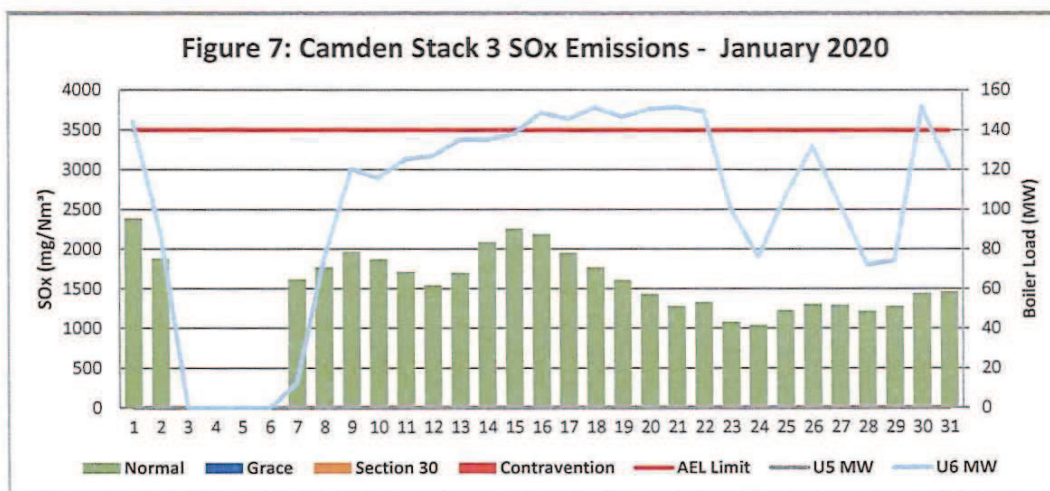


Figure 9: Camden Stack 1 NOx Emissions - January 2020

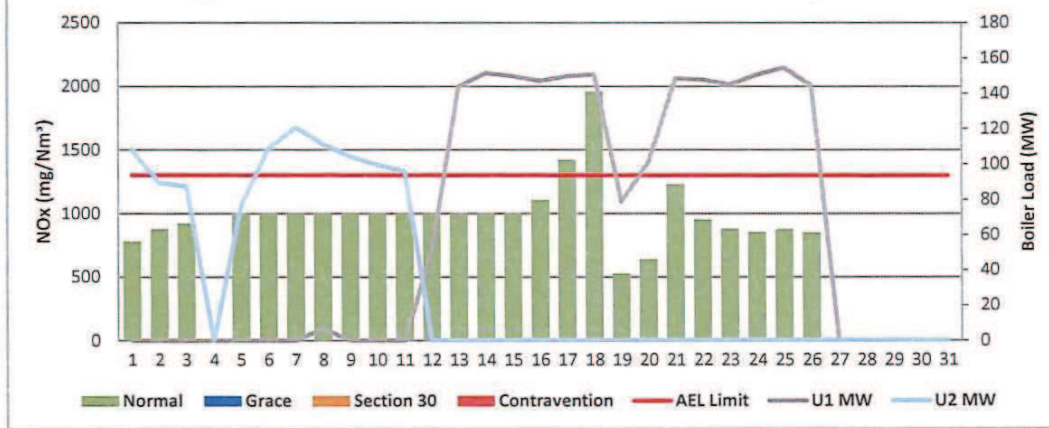
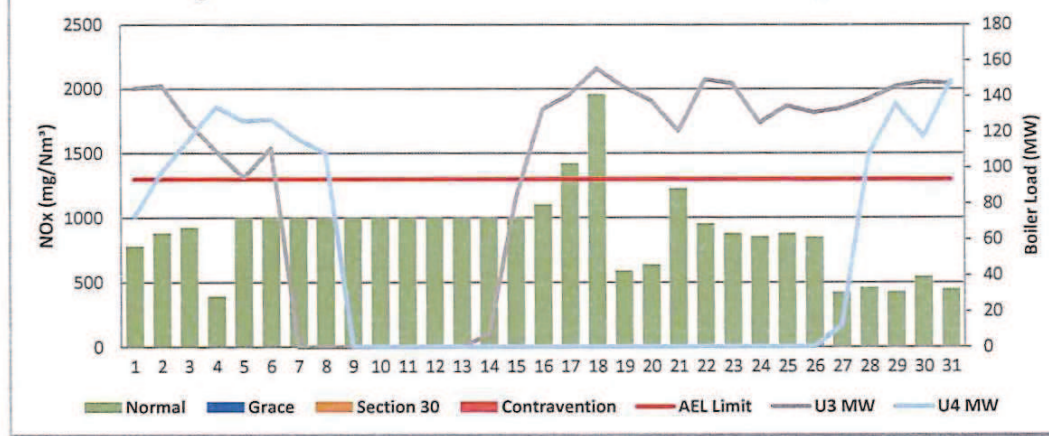
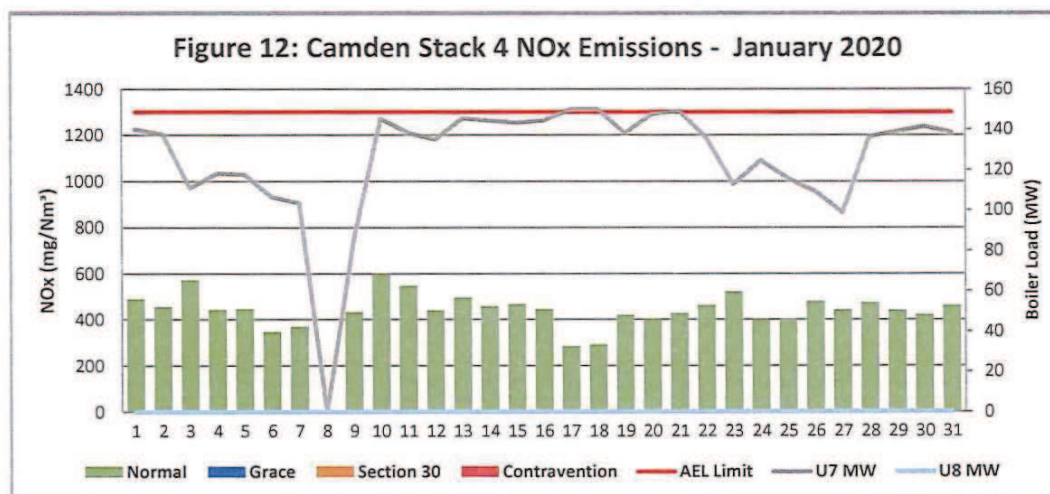
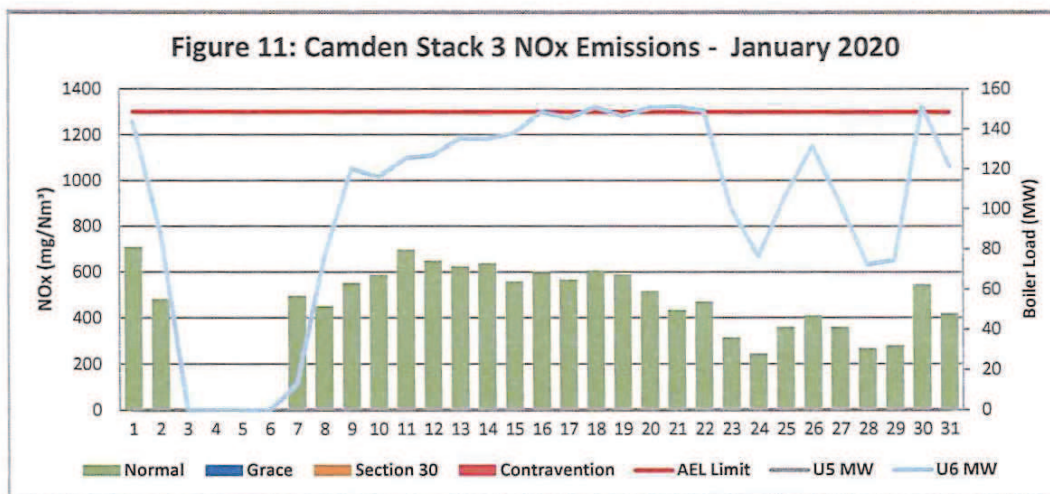


Figure 10: Camden Stack 2 NOx Emissions - January 2020





10 GENERAL / ABNORMALITIES

Unit 1:

None

Unit 2:

None

Unit 3:

None

Unit 4:

None

Unit 5:

The unit was expected to return from GO in late December but during RTS & commissioning further issues were discovered so the unit had to be shutdown again

Unit 6:

Unit off due to ash dam constraints

Unit 7:

Unit off due to ash dam constraints

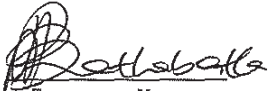
Unit 8:

Unit off due to ash dam constraints

Please note that the issues on Stack 2 still exists Note the PM exceedance 4 on the 22nd Jan 2020

Note the gaseous exceedance on stack 1, monitor indicated to be faulty- there was a power supply dip- Note the attached letter

Lastly please note the Fuel Oil Consumption exceedance for the month of Jan 2020- Letter also attached


Engineering Manager

26/2/20
Date


Environmental Manager

26/02/2020
Date

Compiled by Environmental Department & verified by Boiler Eng

Env Practitioner & System Eng

For Department of Environmental Affairs and Tourism

Chief Air Pollution Control Officer

Copies Eskom Environmental Management

D Herbst
B Mccourt

Group Technology Engineering

R Rampiar
E Patel

Camden Power Station

Engineering Manager
Operating Manager
Maintenance Manager
Unit Production Manager
Boiler Engineering Manager
System Engineer
Environmental Officer
Performance and Test
Production Manager